Morphological identity and voice mismatch in VP ellipsis: An interference-based account.

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I. Introduction

Licensing ellipsis. Implicit material in VP ellipsis Δ argued to be recovered by various mechanisms: syntactic identity, semantic identity, discourse, and combinations of the above.

(1) a. John met Sue, and Mary did Δ_meet Sue, too.

   b. Sue was met by John, and Mary was Δ_met by John, too.

Voice mismatch asymmetry. Voice (*Active, Passive*) mismatches selectively tolerated: Passive-Active mismatches more acceptable than Active-Passive mismatches [1, 2, 3]

(2) a. * John met Sue, and Mary was Δ_met by Sue, too.

   b. ? Sue was met by John, and Mary did Δ_meet John, too.

Retrieval accounts.
- ☞ **Voice match:** Syntactically identical antecedent retrieved, licensing standard ellipsis.
- ☞ **Voice mismatch:** Syntactic form of passive misremembered or misretrieved as active, resulting in ocassional grammatical illusion. [2, 4]

II. Competition-based account

Inspired by ACT-R architecture [5]
- ☞ Lexical items spread activation to items of the same form, including homophonous Active-Passive forms
- ☞ Unencountered Active or Passive forms receive spreading activation when Passive or Active forms are accessed
- ☞ But Actives have a higher base activation than Passives due to increased base frequency, accounting for asymmetry:

Active-Passive   Passive-Active
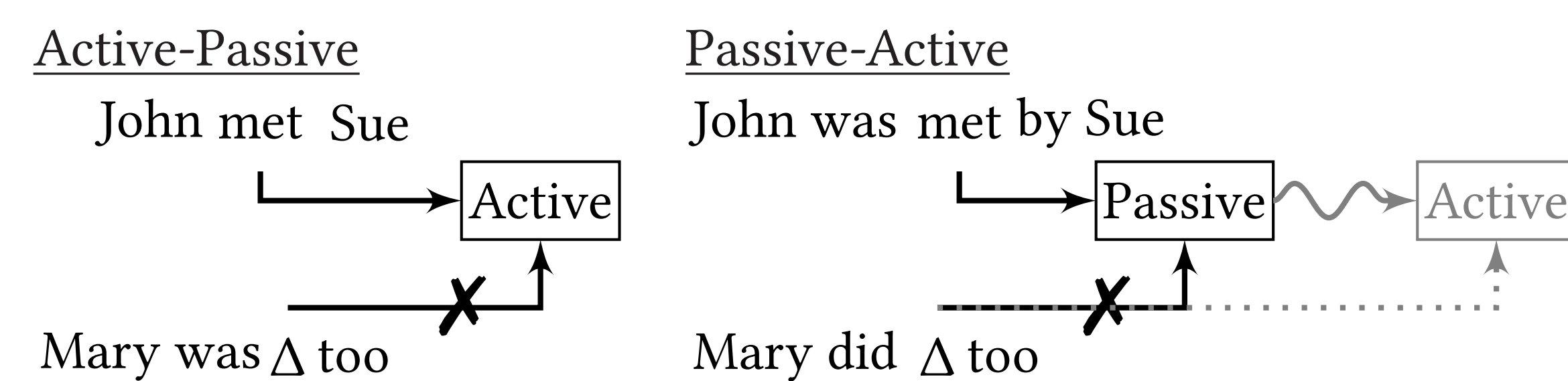
Novel prediction: Passives with different forms than Actives (*was driven∼drove*) spread no/less activation to Actives, hence less facilitation for Passive-Active VPE than those with the same form (*was met∼met*).

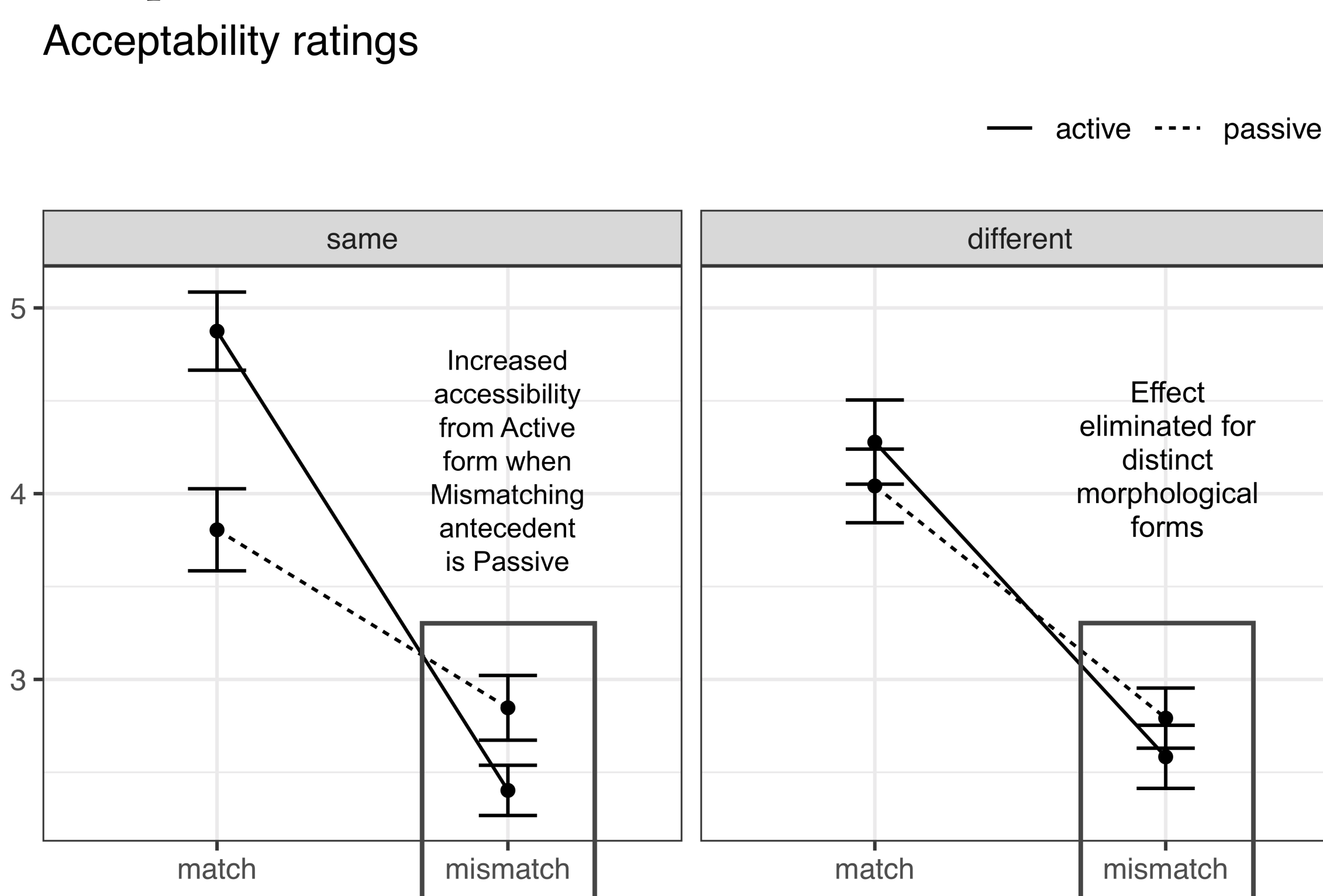Active-Passive   Passive-Active
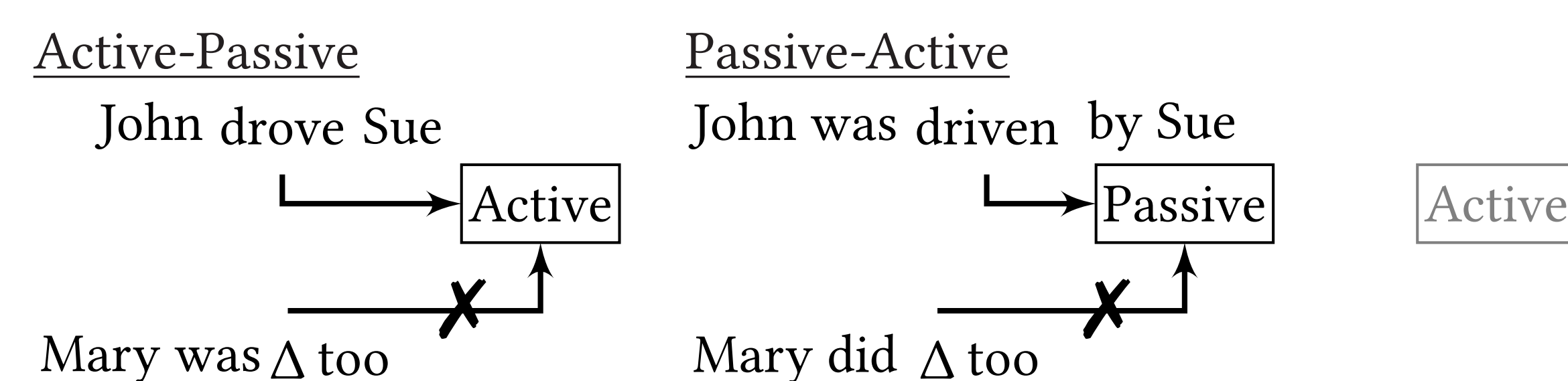
III. Materials and predictions

Materials. 24 quartets crossed **Antecedent Voice** type (Active/Passive) with **Match** (Match/Mismatch). Between items manipulation of **Morph** (Same/Different).

Morph	Voice	Main clause	Match	Mismatch
Same	*Active*	John found Mary, and then Peter	did too	was too
	Passive	Mary was found by John, and then Peter	was too	did too
Different	*Active*	Abby drove Frank, and then Sloan	did too	was too
	Passive	Frank was driven by Abby, and then Sloan	was too	did too

- ☐ **Voice Mismatch Penalty:** General cost for mismatching ellipsis.
- ☐ **Passive Penalty:** General cost for Passive over Active structures.
- ☐ **Mismatch Asymmetry:** Passive-Active mismatches more acceptable than Passive-Active mismatches.
- ☐ **Mismatch Asymmetry modulated by Morphology:** Increased acceptability of Passive-Active mismatch reduced or eliminated when morphological form of voice differs.

IV. Experiment 1: Acceptability ratings

24 native English speakers from UCLA rated sentences for acceptability on a Likert scale (7=Completely acceptable). All subjects passed catch item controls.
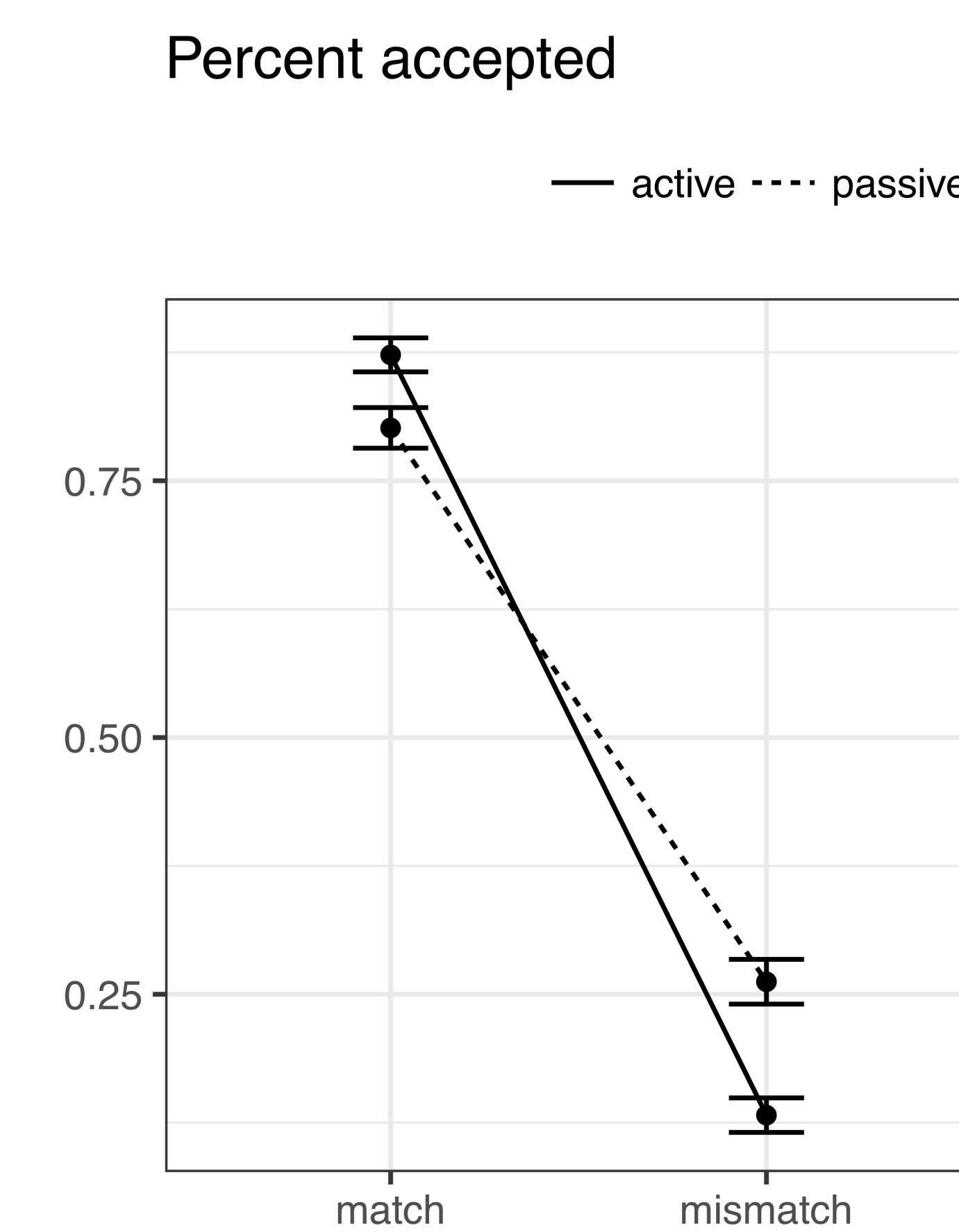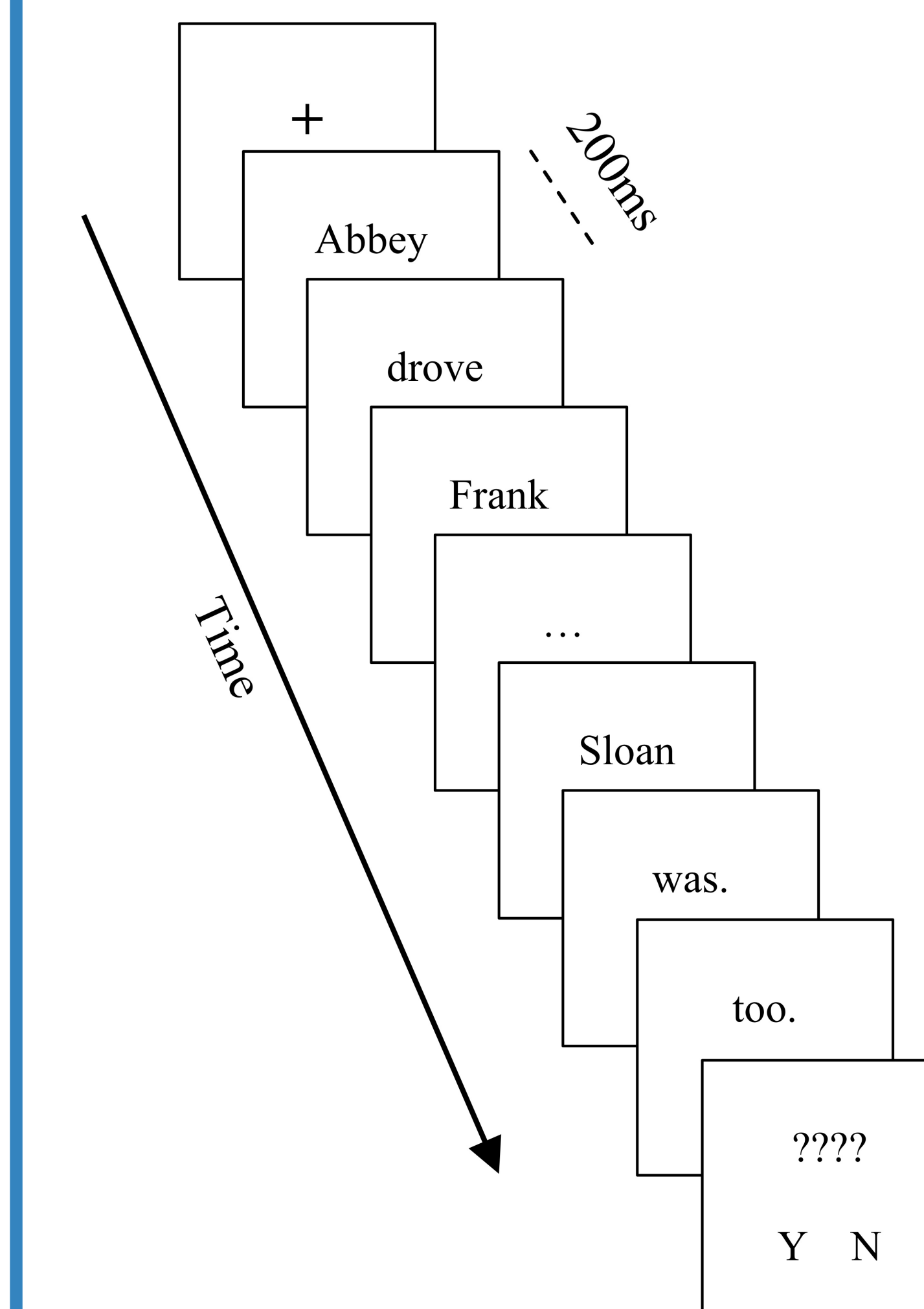

Acceptability ratings

— active   ···· passive

Increased accessibility from Active form when Mismatching antecedent is Passive

Effect eliminated for distinct morphological forms

- ☑ **Voice Mismatch Penalty**
- ☑ **Passive Penalty**
- ☑ **Mismatch Asymmetry**
- ☑ **No Mismatch Asymmetry for Different morphology verbs**
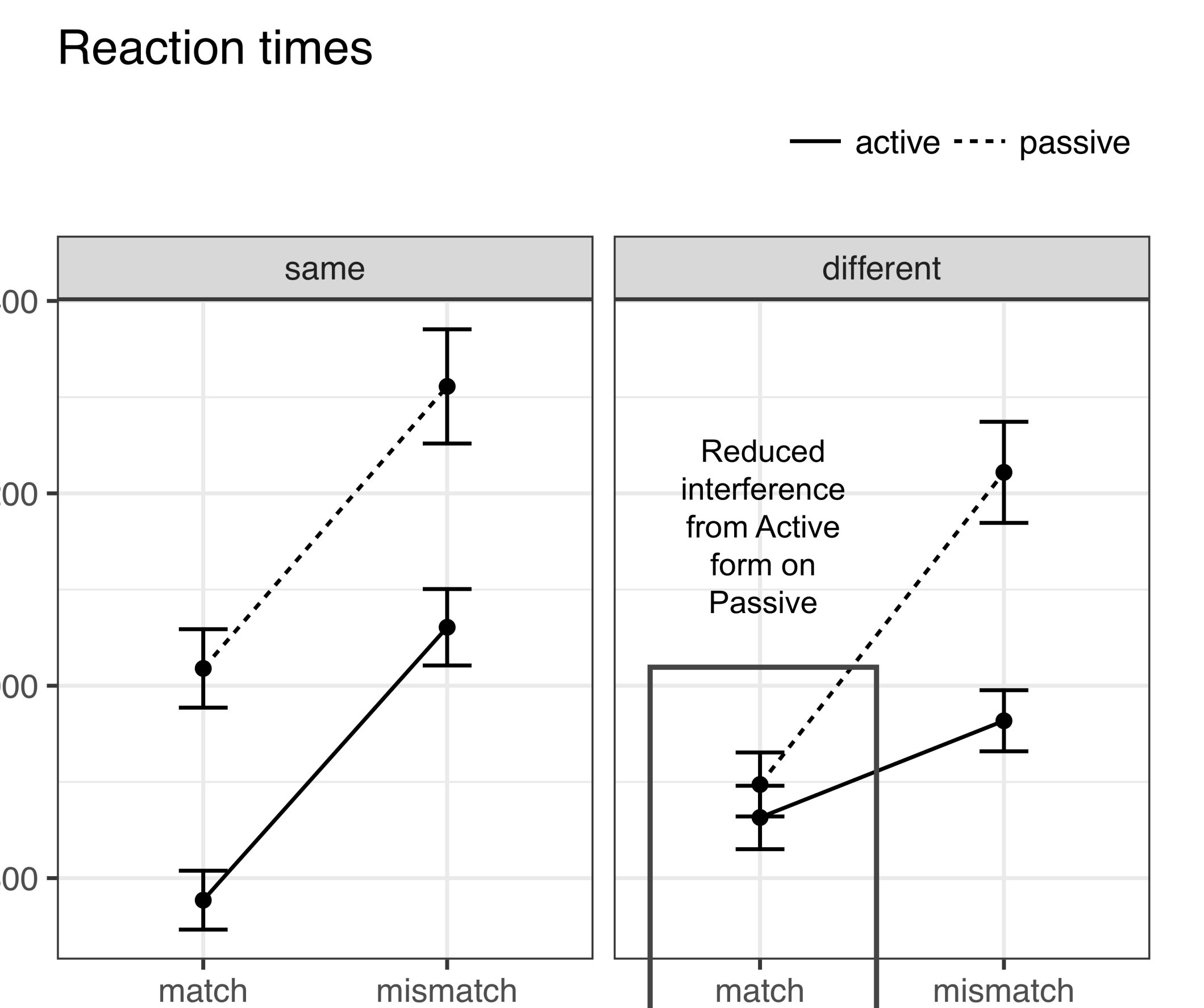
Voice morphology: Misretrieval of VP depends on morphological form.

V. Experiment 2: RSVP Speeded grammaticality

64 native English speakers from UCLA scoring over 70% on unrelated filler items. 2AFC Speeded acceptability study. Results analyzed as ex-Gaussian Bayesian models.

Percent accepted

Reaction times

— active   ···· passive

Reduced interference from Active form on Passive

- ☑ **Voice Mismatch Penalty**
- ☑ **Passive Penalty**
- ☑ **Mismatch Asymmetry**
- ☑ **Mismatch Asymmetry modulated by Morphology:** Lack of competition from Active given Passive antecedent with different form yields faster RTs.
- ☐ Effect trended in Percent accepted, but not significant.

VI. Conclusions and further questions

- ☞ Replicated **Voice Mismatch Penalty + Asymmetry** [1, 4] and **Passive Penalty** [6] in offline and online paradigms
- ☞ Support for **novel prediction** that Voice Mismatch Asymmetry restricted to cases where the Active and Passives share morphological form:
  - **Exp 1. Asymmetry disappears** in acceptability ratings when Passive and Active forms are distinct;
  - **Exp 2. Shorter RTs for Passive Match** case when morphological form is distinct from Actives – suggesting that there is **decreased lexical competition** from more frequent Actives, which speeds time to decision

- ☞ Effects of discourse coherence might also be limited to/modulated by morphology?
- ☞ Modeling effects directly within ACT-R model?

References

[1] Clifton, et al. (2019). A note on the voice mismatch asymmetry in ellipsis. *JPR*, 48:877–887
[2] Parker (2018). A memory-based explanation of antecedent-ellipsis mismatches. *Glossa*, 3
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[4] Arregui, et al. (2006). Processing elided verb phrases with flawed antecedents: The recycling hypothesis. *JML*, 55:232–246
[5] Anderson, & Lebiere (1998). *The Atomic Components of Thought.* Lawrence Erlbaum Associates
[6] Poppels, & Kehler (2019). Reconsidering asymmetries in voice-mismatched VP-ellipsis. *Glossa*, 4